



IFF 62

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Michael G. Monteleone et al.

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Art Unit: 1743

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Examiner: Monique T.  
Cole

For: ACETONIDE FRAGRANCE COMPOUND

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. §1.132

Sir:

I, Anthony T. Levorse, Jr., Ph.D., hereby declare:

I have a Ph.D. in Chemistry from Rutgers the State University of New Jersey and did post-doctoral work at the University of Wisconsin, Madison in 1988-1989.

I am currently employed as a Research Fellow at International Flavors & Fragrances Inc. (IFF). I have been employed by IFF as a research chemist for the past 16 years at IFF's Union Beach, New Jersey Research & Development facilities. During this time I have been named as an inventor on numerous US patents and published patent applications. My work is directed primarily to the discovery and development of new fragrance molecules.

The invention as described and claimed in the above-identified application is directed to the discovery of a novel chemical entity that possesses a novel woody or mossy odor character. The

chemical entity is 4H-indeno[4,5D]-1,3-dioxole,3A,5,6,7,8,8B-hexahydro-2,2,6,6,7,8,8-heptamethyl. It is prepared by a novel one step oxidation/acetone ketal formation reaction of the corresponding diene. An intermediate epoxide is not isolated but converted in-situ to the 1,3-dioxole product. Structurally this 1,3-dioxole product is the acetone ketal of the corresponding vicinal diol oxidation product of the diene noted above. A vicinal diol is equivalent to a 1,2 positional diol.

In contrast, the chemical structure described in US Patent 6,303,798 ('798 patent) and relied upon in rejecting the pending claims is a 1,3-dioxin. This compound is the formaldehyde acetal of the corresponding 1,3 diol, which is chemically different from a vicinal diol. The 1,3-dioxole of the present invention can not be prepared via chemical methods described in US 6,303,798.

The structural differences between the 1,2 positional diol of the present invention and 1,3-dioxin of US Patent 6,303,798 manifest themselves in different chemical and olfactory properties. As noted in column 1, lines 63-65 of the '798 patent "The compound of the present invention has a powerful musk fragrance, with sweet, powdery, spicy and nitromusk notes." In contrast, the compound claimed in the instant application is described as having woody or mossy notes.

In my opinion, the above described differences in the molecules demonstrate that a person with a skill in the art would not find the compound of the present invention obvious in view of the compound claimed in the '798 patent.

It is well accepted in the fragrance art that a small change in a structure of a molecule can have a major impact on its olfactory property. In my opinion a 5 member ring structure is not obvious in view of a 6 member ring structure.

The undersigned petitioner declares further that all statements made herein of this own knowledge are true and that all statements made on information and belief are believed to be

true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

16 November 2005

Date

Anthony T. Levorse, Jr.

Anthony T. Levorse, Jr, PhD.